

What is claim d is:

1. An actuator for engagement and disengagement operation of a power transmission device, comprising:

a first plate being fixed;

5 a second plate being movable in a direction of the engagement and disengagement operation so as to be engaged with the first plate;

a third plate disposed opposite to the second plate with respect to the first plate, the third plate being rotatably engaged with the second plate;

10 a drive unit engageable with the third plate so as to rotate the third plate;

a cam mechanism converting a rotation of the third plate to a movement of the second plate in the direction of the engagement and disengagement operation; and

15 a retaining device retaining an engagement of the third plate with the drive unit, wherein the second plate moved by the cam mechanism drives the power transmission device in the direction of the engagement and disengagement operation.

20 2. The actuator of claim 1, wherein:

the second plate comprises a gear portion and the power transmission device comprises a pinion gear for engagement with the gear portion.

3. The actuator of claim 2, wherein:

25 the retaining device comprises a guide portion surrounding the gear portion, both ends of the guide portion being integrally connected with the gear portion, and the both ends of the guide

portion abut the pinion gear so as to retain the engagement.

4. The actuator of claim 1, wherein:

the retaining device comprises a stopper restricting a rotation span of the third plate, the stopper formed on the first plate.

5. The actuator of claim 4, wherein:

the third plate comprises an absorber abutting the stopper.

6. The actuator of claim 5, wherein:

the absorber comprises a resilient piece.

10 7. The actuator of claim 4, wherein:

the third plate comprises a thick wall portion for abutting the stopper.

8. The actuator of claim 1, wherein:

the retaining device comprises an absorber restricting a rotation span of the third plate, the absorber formed on the first plate.

9. The actuator of claim 8, wherein:

the absorber comprises a resilient piece.

10. The actuator of claim 8, wherein:

20 the absorber comprises a spring.

11. The actuator of claim 1, wherein:

the retaining device comprises a folded portion of the third plate surrounding an end portion of the first plate.

12. The actuator of claim 1, further comprising:

25 a deceleration device decelerating the third plate after the third plate drives the cam mechanism and before the retaining device restricts the rotation of the third plate.

13. The actuator of claim 12, wherein:

the deceleration device comprises a projection integrally formed with the first plate so as to decelerate the third plate by a friction.

5 14. The actuator of claim 1, wherein:

the drive unit comprises an electric motor.

15. An intermissive power transmission device, comprising:

a pair of power transmission members;

a pair of clutches for intermission of power transmission;

10 a first plate being fixed;

a second plate being movable in a direction of the engagement and disengagement operation so as to be engaged with the first plate;

15 a third plate disposed opposite to the second plate with respect to the first plate, the third plate being rotatably engaged with the second plate;

a drive unit engageable with the third plate so as to rotate the third plate;

20 a cam mechanism converting a rotation of the third plate to a movement of the second plate in the direction of the engagement and disengagement operation; and

a retaining device retaining an engagement of the third plate with the drive unit, wherein the second plate moved by the cam mechanism drives the power transmission device in the
25 direction of the engagement and disengagement operation.

16. The intermissive power transmission device of claim 15, wherein:

the first plate, the second plate and the third plate are respectively and integrally formed from a flat material.